

METHOD AND APPARATUS FOR RECONSTRUCTING
MOTOR CURRENT FROM DC BUS CURRENT

ABSTRACT OF THE DISCLOSURE

In a PWM space vector modulation inverter motor drive system, PWM cycles are modified to permit motor phase currents to be reconstructed as observable on the DC bus link. The PWM cycles are modified near sector boundaries so that measurements taken at the DC bus link correspond to actual motor phase currents. With this technique, a single DC bus current measure can be used to reconstruct all motor phase currents, while also providing fault protection.